## Abstract

Arrangement and method for converting a thermometer code

The invention relates to an arrangement for converting a binary input signal corresponding to an n-bit thermometer code into a binary output code different therefrom,

- having a first number of OR gate circuits, into the inputs of which bits of the thermometer code can be coupled,
- having a first adder, which is connected downstream of the OR gate circuits and into the inputs of which the output signals of the OR gate circuits can be coupled and which provides at least one binary output signal for the output code at its outputs,
- having a second number of multiplexer circuits, into the inputs of which bits of the thermometer code can be coupled and into the multiplexer selection terminals of which the output signals of the first adder can be coupled,
- having a second adder, which is connected downstream of the multiplexer circuits and into the inputs of which the output signals of the multiplexer circuits can be coupled and which provides at least one further binary output signal for the output code at its outputs.

The invention furthermore relates to a conversion method.

Figure 2

## List of reference symbols

1 2, 3, 4 5	converter OR gate (circuits) first (full) adder
6, 7, 8	multiplexer (circuits)
9	second (full) adder
10 - 13	output terminals
20	analog-to-digital converter
21	input of the analog-to-digital
	converter
22	input stage
23	reference stage
24	reference voltage source
A, B, C	inputs of the adders
DO - D15	analog output signals
CO, S	outputs of the adders
in(0) - in(15)	bits/bit signals of the thermometer
	code
out(0) - out(3)	bits/bit signals of the binary
	output code
S0, S1	selection terminals of the
***	multiplexer
VI	analog input signal
MSB	most significant bit/->
LSB	most significant bit(s)
MSS	least significant bit(s)
LSS	most significant segment(s)
T23	least significant segment(s)